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IDENTIFIERS Soldering

ABSTRACT

This task list is intended for use in planning and/or evaluating a competency-based course in heating, ventilation, and air conditioning. The guide outlines the tasks entailed in eight different duties typically required of employees in the following occupations: residential installer, domestic refrigeration technician, air conditioning and heating technician, and maintenance technician. The following duties are covered: brazing, cutting, fitting, and soldering pipe; installing and servicing electrical controls; and installing and servicing compressors, condensers, evaporators, domestic refrigerators, residential heating systems, motors and components, and heat pumps. The occupational duty/task lists are the result of an extensive two-step development process in which information on current occupational requirements was gathered from such sources as consortia, trade associations, and current curriculum materials and was then synthesized by industry representatives, vocational instructors, and state-level representatives. (MN)

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DUTY TASK LIST

RESIDENTIAL INSTALLER
DOMESTIC REFRIGERATION TECHNICIAN
A/C AND HEATING TECHNICIAN
MAINTENANCE TECHNICIAN

CE051535

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OKLAHOMA OCCUPATIONAL TESTING CENTER

OKLAHOMA OCCUPATIONAL TESTING CENTER

INTRODUCTION:

Today's vocational instructors and administrators are faced with a myriad of important questions. They are searching for methods of providing accountability for students' acquisition of knowledge and skills as related to a constantly changing job market.

The Oklahoma Occupational Testing Center is in the business of eliminating some of the guesswork in answering today's tough questions. The professional staff, using a thorough and valid methodology, has developed duty/task lists for over 150 occupations in vocational education. Additional occupational duty/task lists will be made available as development is completed. These duty/task lists will help answer the following questions:

- Are students being prepared for today's jobs?
- What should today's vocational instructors be teaching?
- Is the curriculum addressing industry needs and is it up-to-date?
- How can vocational programs be improved?
- What in-service programs are needed for instructors?

BACKGROUND:

The occupational duty/task lists are the result of an extensive development process. Information regarding the occupational skills needed for employment is gathered from a number of sources such as consortia, trade associations, and current curriculum materials. This information is then synthesized by: 1) industry representatives, 2) vocational instructors, and 3) state level vocational representatives. The end result is a listing of occupations and the specific duties and tasks within each occupation. After dissemination for field review a committee of industry and vocational representatives revise the duty/task list to its final form.

USES:

The Oklahoma Occupational Testing Center's Duty/Task Lists are designed to be of value to a vocational program in several ways:

- Improving program planning
- Documenting industrial standards
- Evaluating curriculum and instruction
- Tracking individualized instruction*
- Using as a discussion tool with advisory committees
- Developing up-to-date job descriptions
- Performing self-evaluations
- Performing administrative program evaluations

INFORMATION:

To find out more about the Oklahoma Occupational Testing Center, call toll free:
1-800-654-4502.
Ask for our free catalog, listing over 150 occupations for which duty/task lists are available. CIMC curriculum materials related to these lists may also be available.

*A Progress Chart is provided for tracking individualized instruction.

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Oklahoma Occupational Testing Center

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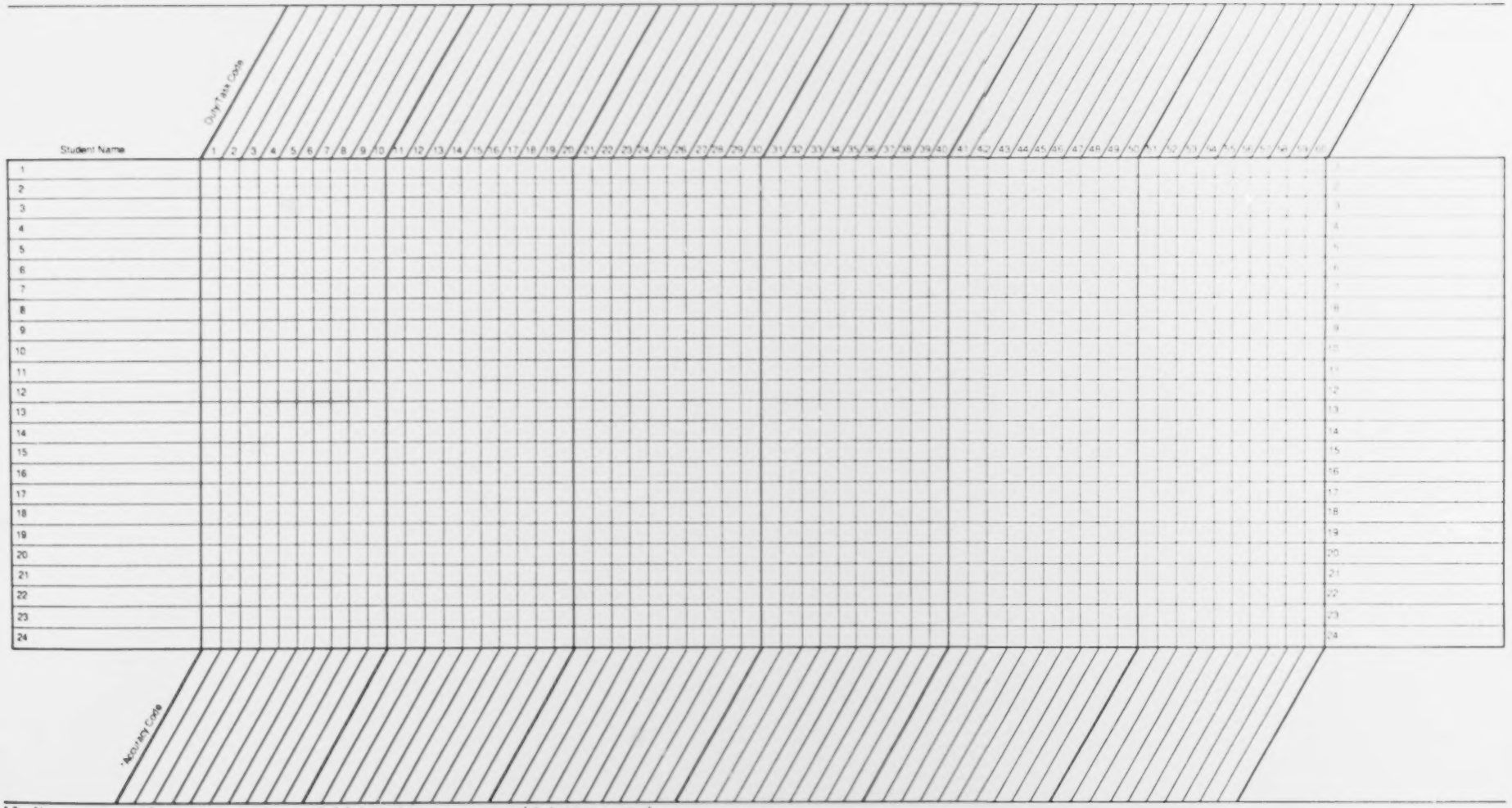
PROGRESS CHART

OKLAHOMA OCCUPATIONAL TESTING CENTER

Program

Oklahoma State Department of Vocational and Technical Education

Date



* 0 = No exposure - no information nor practice provided during training program; complete training required.
1 = Exposure only - general information provided with no practice time; close supervision needed and additional training required.
2 = Limited practice - has practiced during training program; additional training is required to develop skill.
3 = Moderately skilled - has performed independently during training program; limited additional training may be required.
4 = Skilled - can perform independently with no supervision.

This chart may be duplicated as needed.

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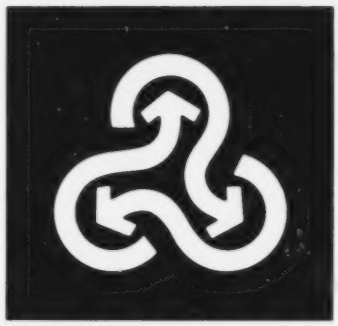
**This chart is intended for teacher file use only. Do not post.

DUTY/TASK LISTS

HEATING, VENTILATION, AND AIR CONDITIONING SERIES



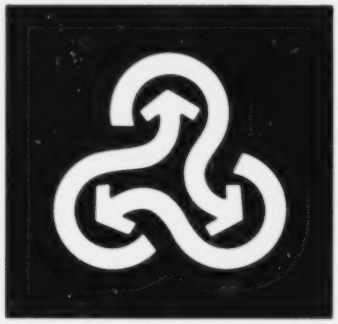
OCCUPATIONS:

1. Residential Installer
2. Domestic Refrigeration Technician
3. A/C and Heating Technician
4. Maintenance Technician

OKLAHOMA OCCUPATIONAL TESTING CENTER

DUTY/TASK LIST

HEATING, VENTILATION, AND AIR CONDITIONING SERIES



OCCUPATION 1: RESIDENTIAL INSTALLER

DUTIES:
- A. Braze, Cut, Fit, and Solder Pipe
- C. Install and Service Electrical Circuits, Motors, and Components
- D. Install and Service Compressors, Condensers, and Evaporators
- E. Install and Service Domestic Refrigeration
- F. Install and Service Residential Heating Systems
- G. Install and Service Motors and Components
- H. Install and Service Heat Pumps

OKLAHOMA OCCUPATIONAL TESTING CENTER

OCCUPATION: RESIDENTIAL INSTALLER

DUTY: Braze, Cut, Fit, and Solder Pipe

CODE	TASK	TAUGHT	COMMENTS
A.01	Braze tubing (copper, aluminum, steel)		
A.02	Bend tubing		
A.03	Cut tubing		
A.04	Flare copper tubing		
A.05	Soft-solder tubing		
A.06	Cut and thread pipe		
A.07	Swage tubing		
A.08	Identify fittings		
A.09	Identify tubing and pipe		

OCCUPATION: RESIDENTIAL INSTALLER

DUTY: Install and Service Electrical Circuits, Motors, and Components

CODE	TASK	TAUGHT	COMMENTS
C.29	Wire mercury bulb thermostat		

OCCUPATION: **RESIDENTIAL INSTALLER**

DUTY: **Install and Service Compressors, Condensers, and Evaporators**

CODE	TASK	TAUGHT	COMMENTS
D.04	Evacuate system		
D.13	Straighten condenser fins		

OCCUPATION: **RESIDENTIAL INSTALLER**

DUTY: **Install and Service Domestic Refrigeration**

CODE	TASK	TAUGHT	COMMENTS
E.14	Test for leaks		

OCCUPATION: **RESIDENTIAL INSTALLER**

DUTY: **Install and Service Residential Heating Systems**

CODE	TASK	TAUGHT	COMMENTS
F.01	Adjust gas pressure regulator		
F.02	Adjust primary air flow on burner		
F.03	Align gas burners		
F.04	Check temperature rise across furnace		
F.07	Compute cubic feet per hour gas requirements for furnace		
F.09	Install gas piping		
F.10	Install flue vents		
F.11	Light and adjust pilots		

OCCUPATION: RESIDENTIAL INSTALLER

DUTY: Install and Service Motors and Components

CODE	TASK	TAUGHT	COMMENTS
G.01	Align drive pulley		
G.02	Adjust V-belt tension		

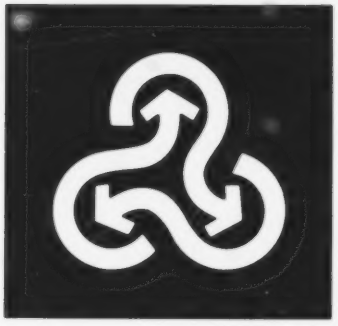
OCCUPATION: RESIDENTIAL INSTALLER

DUTY: Install and Service Heat Pumps

CODE	TASK	TAUGHT	COMMENTS
H.05	Install outdoor unit (heat pump)		
H.06	Install heat pump thermostat and cable		

DUTY/TASK LIST

HEATING, VENTILATION, AND AIR CONDITIONING SERIES



OCCUPATION 2: DOMESTIC REFRIGERATION TECHNICIAN

DUTIES:
- A. Braze, Cut, Fit, and Solder Pipe
- B. Install and Service Electrical Controls
- C. Install and Service Electrical Circuits, Motors, and Components
- D. Install and Service Compressors, Condensers, and Evaporators
- E. Install and Service Domestic Refrigeration
- G. Install and Service Motors and Components

OKLAHOMA OCCUPATIONAL TESTING CENTER

OCCUPATION: DOMESTIC REFRIGERATION TECHNICIAN

DUTY: Braze, Cut, Fit, and Solder Pipe

CODE	TASK	TAUGHT	COMMENTS
A.01	Braze tubing (copper, aluminum, steel)		
A.02	Bend tubing		
A.03	Cut tubing		
A.04	Flare copping tubing		
A.05	Soft-solder tubing		
A.06	Cut and thread pipe		
A.07	Swage tubing		
A.08	Identify fittings		
A.09	Identify tubing and pipe		

OCCUPATION: DOMESTIC REFRIGERATION TECHNICIAN

DUTY: Install and Service Electrical Controls

CODE	TASK	TAUGHT	COMMENTS
B.01	Adjust temperature controls		
B.03	Replace pressure control switch		
B.04	Replace temperature control		
B.05	Replace thermostat		
B.06	Test thermostat controls		
B.07	Test electrical safety controls		

OCCUPATION: DOMESTIC REFRIGERATION TECHNICIAN

DUTY: Install and Service Electrical Circuits, Motors, and Components

CODE	TASK	TAUGHT	COMMENTS
C.02	Install "Hard Start Kit" (potential relay and start capacitor)		
C.06	Replace current relay		
C.07	Replace defrost heater		
C.08	Replace defrost thermostat		
C.09	Replace defrost timer		
C.10	Replace fuse		
C.11	Replace hermetic compressor overload protector		
C.12	Replace hot-wire relay		
C.14	Replace limit control switch		
C.15	Replace magnetic coil		
C.16	Replace potential relay		
C.18	Replace transformer		
C.19	Start a seized hermetic compressor motor		
C.20	Test defrost thermostat		
C.21	Test defrost timer		
C.22	Test hermetic compressor overload protectors		
C.24	Test hot-wire relay		
C.26	Test potential relay		
C.27	Wire current relay (coil-type)		
C.30	Wire a start capacitor with a current or hot-wire		
C.31	Wire a run capacitor with a P.S.C. compressor motor		

OCCUPATION: DOMESTIC REFRIGERATION TECHNICIAN

DUTY: Install and Service Electrical Circuits, Motors, and Components (Continued)

CODE	TASK	TAUGHT	COMMENTS
C.32	Wire a run capacitor with a C.S.R. compressor motor		
C.33	Determine common start and run terminals		
C.34	Test capacitors		
C.35	Test and install window unit switches and thermostats		

OCCUPATION: DOMESTIC REFRIGERATION TECHNICIAN

DUTY: Install and Service Compressors, Condensers, and Evaporators

CODE	TASK	TAUGHT	COMMENTS
D.01	Add oil		
D.02	Add refrigerant		
D.04	Evacuate system		
D.06	Install air-cooled condenser		
D.07	Purge system of refrigerant		
D.10	Replace condenser		
D.11	Replace evaporator		
D.12	Replace solenoid valve		
D.13	Straighten condenser fins		

OCCUPATION: DOMESTIC REFRIGERATION TECHNICIAN

DUTY: Install and Service Domestic Refrigeration

CODE	TASK	TAUGHT	COMMENTS
E.01	Adjust refrigerator/freezer doors		
E.02	Adjust water valve switch in an icemaker		
E.03	Clean restricted capillary tube		
E.04	Clean system after burnout		
E.05	Clean water-fill valve		
E.06	Charge refrigeration system		
E.07	Check efficiency of compressor motor		
E.08	Check temperature-pressure		
E.09	Evacuate refrigeration system		
E.10	Install access core-type service valve		
E.11	Install suction line filter		
E.12	Install line tap service valve		
E.13	Install service stub		
E.14	Test for leaks		
E.15	Level refrigerator/freezer		
E.16	Liquid charge a refrigeration system		
E.17	Purge refrigeration system		
E.18	Replace capillary tube		
E.19	Replace compressor		
E.20	Replace door seal		
E.21	Replace drain heater		
E.22	Replace mold heater		

OCCUPATION: DOMESTIC REFRIGERATION TECHNICIAN

DUTY: Install and Service Domestic Refrigeration (Continued)

CODE	TASK	TAUGHT	COMMENTS
E.23	Replace mullion heater		

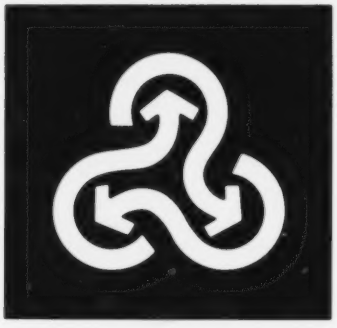
OCCUPATION: DOMESTIC REFRIGERATION TECHNICIAN

DUTY: Install and Service Motors and Components

CODE	TASK	TAUGHT	COMMENTS
G.03	Clean an electric motor		
G.04	Perform RPM test on electric motor		
G.06	Replace electric motor		
G.08	Replace fan blade		
G.09	Reverse the rotation of an electric motor		
G.10	Wire a split-phase, dual-voltage motor to a 120/240 VAC supply		

DUTY/TASK LIST

HEATING, VENTILATION, AND AIR CONDITIONING SERIES



OCCUPATION 3: A/C AND HEATING TECHNICIAN

DUTIES:

A. Braze, Cut, Fit, and Solder Pipe
B. Install and Service Electrical Controls
C. Install and Service Electrical Circuits, Motors, and Components
D. Install and Service Compressors, Condensers, and Evaporators
E. Install and Service Domestic Refrigeration
F. Install and Service Residential Heating Systems
G. Install and Service Motors and Components
H. Install and Service Heat Pumps

OKLAHOMA OCCUPATIONAL TESTING CENTER

OCCUPATION: A/C AND HEATING TECHNICIAN

DUTY: Braze, Cut, Fit, and Solder Pipe

CODE	TASK	TAUGHT	COMMENTS
A.01	Braze tubing (copper, aluminum, steel)		
A.02	Bend tubing		
A.03	Cut tubing		
A.04	Flare copper tubing		
A.05	Soft-solder tubing		
A.06	Cut and thread pipe		
A.07	Swage tubing		
A.08	Identify fittings		
A.09	Identify tubing and pipe		

OCCUPATION: A/C AND HEATING TECHNICIAN

DUTY: Install and Service Electrical Controls

CODE	TASK	TAUGHT	COMMENTS
B.01	Adjust temperature controls		
B.02	Adjust pressure controls		
B.03	Replace pressure control switch		
B.04	Replace temperature control		
B.05	Replace thermostat		
B.06	Test thermostat controls		
B.07	Test electrical safety controls		

OCCUPATION: A/C AND HEATING TECHNICIAN

DUTY: Install and Service Electrical Circuits, Motors, and Components

CODE	TASK	TAUGHT	COMMENTS
C.01	Adjust limit switch		
C.02	Install "Hard Start Kit" (potential relay and start capacitor)		
C.03	Install lockout relay		
C.04	Replace air pressure switch		
C.05	Replace contactor		
C.06	Replace current relay		
C.07	Replace defrost heater		
C.08	Replace defrost thermostat		
C.09	Replace defrost timer		
C.10	Replace fuse		
C.11	Replace hermetic compressor overload protector		
C.12	Replace hot-wire relay		
C.13	Replace fan relay		
C.14	Replace limit control switch		
C.15	Replace magnetic coil		
C.16	Replace potential relay		
C.17	Replace time delay relay		
C.18	Replace transformer		
C.19	Start a seized hermetic compressor motor		
C.20	Test defrost thermostat		
C.21	Test defrost timer		
C.22	Test hermetic compressor overload protectors		

OCCUPATION: A/C AND HEATING TECHNICIAN

DUTY: Install and Service Electrical Circuits, Motors, and Components (Continued)

CODE	TASK	TAUGHT	COMMENTS
C.23	Test high-voltage transformer		
C.24	Test hot-wire relay		
C.25	Test magnetic contactor		
C.26	Test potential relay		
C.27	Wire current relay (coil-type)		
C.28	Wire fan relay		
C.29	Wire mercury bulb thermostat		
C.30	Wire a start capacitor with a current or hot-wire		
C.31	Wire a run capacitor with a P.S.C. compressor motor		
C.32	Wire a run capacitor with a C.S.R. compressor motor		
C.33	Determine common start and run terminals		
C.34	Test capacitors		
C.35	Test and install window unit switches and thermostats		

OCCUPATION: A/C AND HEATING TECHNICIAN

DUTY: Install and Service Compressors, Condensers, and Evaporators

CODE	TASK	TAUGHT	COMMENTS
D.01	Add oil		
D.02	Add refrigerant		
D.03	Adjust expansion valve		
D.04	Evacuate system		
D.05	Install accumulator		
D.06	Install air-cooled condenser		
D.07	Purge system of refrigerant		
D.08	Remove restrictions from expansion valve		
D.09	Replace expansion valve		
D.10	Replace condenser		
D.11	Replace evaporator		
D.12	Replace solenoid valve		
D.13	Straighten condenser fins		

OCCUPATION: A/C AND HEATING TECHNICIAN

DUTY: Install and Service Domestic Refrigeration

CODE	TASK	TAUGHT	COMMENTS
E.03	Clean restricted capillary tube		
E.04	Clean system after burnout		
E.05	Clean water-fill valve		
E.06	Charge refrigeration system		
E.07	Check efficiency of compressor motor		
E.08	Check temperature-pressure		
E.09	Evacuate refrigeration system		
E.10	Install access core-type service valve		
E.11	Install suction line filter		
E.12	Install line tap service valve		
E.13	Install service stub		
E.14	Test for leaks		
E.15	Level refrigerator/freezer		
E.16	Liquid charge a refrigeration system		
E.17	Purge refrigeration system		
E.18	Replace capillary tube		
E.19	Replace compressor		

OCCUPATION: **A/C AND HEATING TECHNICIAN**

DUTY: **Install and Service Residential Heating Systems**

CODE	TASK	TAUGHT	COMMENTS
F.01	Adjust gas pressure regulator		
F.02	Adjust primary air flow on burner		
F.03	Align gas burners		
F.04	Check temperature rise across furnace		
F.05	Clean main burner		
F.06	Clean pilot orifices		
F.07	Compute cubic feet per hour gas requirements for furnace		
F.08	Determine dew-point temperature of air		
F.09	Install gas piping		
F.10	Install flue vents		
F.11	Light and adjust pilots		
F.12	Replace gas valves		
F.13	Check thermocouple		
F.14	Replace thermocouple		
F.15	Clean and inspect heat exchanger		

OCCUPATION: A/C AND HEATING TECHNICIAN

DUTY: Install and Service Motors and Components

CODE	TASK	TAUGHT	COMMENTS
G.01	Align drive pulley		
G.02	Adjust V-belt tension		
G.03	Clean an electric motor		
G.04	Perform RPM test on electric motor		
G.05	Replace belts		
G.06	Replace electric motor		
G.07	Replace drive pulley		
G.08	Replace fan blade		
G.09	Reverse the rotation of an electric motor		
G.10	Wire a split-phase, dual-voltage motor to a 120/240 VAC supply		

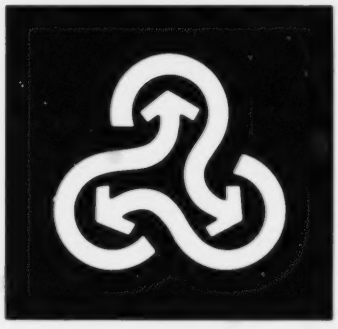
OCCUPATION: **A/C AND HEATING TECHNICIAN**

DUTY: **Install and Service Heat Pumps**

CODE	TASK	TAUGHT	COMMENTS
H.01	Service and repair defrost components		
H.02	Install defrost components		
H.03	Service and repair refrigerant circuit		
H.04	Test and replace reversing valve		
H.05	Install outdoor unit (heat pump)		
H.06	Install heat pump thermostat and cable		
H.07	Test and replace resistive heater circuit		

DUTY/TASK LIST

HEATING, VENTILATION, AND AIR CONDITIONING SERIES



OCCUPATION 4: MAINTENANCE TECHNICIAN

DUTIES:
- A. Braze, Cut, Fit, and Solder Pipe
- B. Install and Service Electrical Controls
- C. Install and Service Electrical Circuits, Motors, and Components
- D. Install and Service Compressors, Condensers, and Evaporators
- E. Install and Service Domestic Refrigeration
- F. Install and Service Residential Heating Systems
- G. Install and Service Motors and Components
- H. Install and Service Heat Pumps

OKLAHOMA OCCUPATIONAL TESTING CENTER

OCCUPATION: MAINTENANCE TECHNICIAN

DUTY: Braze, Cut, Fit, and Solder Pipe

CODE	TASK	TAUGHT	COMMENTS
A.01	Braze tubing (copper, aluminum, steel)		
A.02	Bend tubing		
A.03	Cut tubing		
A.04	Flare copper tubing		
A.05	Soft-solder tubing		
A.06	Cut and thread pipe		
A.07	Swage tubing		
A.08	Identify fittings		
A.09	Identify tubing and pipe		

OCCUPATION: **MAINTENANCE TECHNICIAN**

DUTY: **Install and Service Electrical Controls**

CODE	TASK	TAUGHT	COMMENTS
B.01	Adjust temperature controls		
B.02	Adjust pressure controls		
B.03	Replace pressure control switch		
B.04	Replace temperature control		
B.05	Replace thermostat		
B.06	Test thermostat controls		
B.07	Test electrical safety controls		

OCCUPATION: MAINTENANCE TECHNICIAN

DUTY: Install and Service Electrical Circuits, Motors, and Components

CODE	TASK	TAUGHT	COMMENTS
C.01	Adjust limit switch		
C.02	Install "Hard Start Kit" (potential relay and start capacitor)		
C.03	Install lockout relay		
C.04	Replace air pressure switch		
C.05	Replace contactor		
C.06	Replace current relay		
C.07	Replace defrost heater		
C.08	Replace defrost thermostat		
C.09	Replace defrost timer		
C.10	Replace fuse		
C.11	Replace hermetic compressor overload protector		
C.12	Replace hot-wire relay		
C.13	Replace fan relay		
C.14	Replace limit control switch		
C.15	Replace magnetic coil		
C.16	Replace potential relay		
C.17	Replace time delay relay		
C.18	Replace transformer		
C.19	Start a seized hermetic compressor motor		
C.20	Test defrost thermostat		
C.21	Test defrost timer		
C.22	Test hermetic compressor overload protectors		

OCCUPATION: MAINTENANCE TECHNICIAN

DUTY: Install and Service Electrical Circuits, Motors, and Components (Continued)

CODE	TASK	TAUGHT	COMMENTS
C.23	Test high-voltage transformer		
C.24	Test hot-wire relay		
C.25	Test magnetic contactor		
C.26	Test potential relay		
C.27	Wire current relay (coil-type)		
C.28	Wire fan relay		
C.29	Wire mercury bulb thermostat		
C.30	Wire a start capacitor with a current or hot-wire		
C.31	Wire a run capacitor with a P.S.C. compressor motor		
C.32	Wire a run capacitor with a C.S.R. compressor motor		
C.33	Determine common start and run terminals		
C.34	Test capacitors		
C.35	Test and install window unit switches and thermostats		

OCCUPATION: **MAINTENANCE TECHNICIAN**

DUTY: **Install and Service Compressors, Condensers, and Evaporators**

CODE	TASK	TAUGHT	COMMENTS
D.01	Add oil		
D.02	Add refrigerant		
D.03	Adjust expansion valve		
D.04	Evacuate system		
D.05	Install accumulator		
D.06	Install air-cooled condenser		
D.07	Purge system of refrigerant		
D.08	Remove restrictions from expansion valve		
D.09	Replace expansion valve		
D.10	Replace condenser		
D.11	Replace evaporator		
D.12	Replace solenoid valve		
D.13	Straighten condenser fins		

OCCUPATION: MAINTENANCE TECHNICIAN

DUTY: Install and Service Domestic Refrigeration

CODE	TASK	TAUGHT	COMMENTS
E.01	Adjust refrigerator/freezer doors		
E.02	Adjust water valve switch in an icemaker		
E.03	Clean restricted capillary tube		
E.04	Clean system after burnout		
E.05	Clean water-fill valve		
E.06	Charge refrigeration system		
E.07	Check efficiency of compressor motor		
E.08	Check temperature-pressure		
E.09	Evacuate refrigeration system		
E.10	Install access core-type service valve		
E.11	Install suction line filter		
E.12	Install line tap service valve		
E.13	Install service stub		
E.14	Test for leaks		
E.15	Level refrigerator/freezer		
E.16	Liquid charge a refrigeration system		
E.17	Purge refrigeration system		
E.18	Replace capillary tube		
E.19	Replace compressor		
E.20	Replace door seal		
E.21	Replace drain heater		
E.22	Replace mold heater		

OCCUPATION: MAINTENANCE TECHNICIAN

DUTY: Install and Service Domestic Refrigeration (Continued)

CODE	TASK	TAUGHT	COMMENTS
E.23	Replace mullion heater		

OCCUPATION: MAINTENANCE TECHNICIAN

DUTY: Install and Service Residential Heating Systems

CODE	TASK	TAUGHT	COMMENTS
F.01	Adjust gas pressure regulator		
F.02	Adjust primary air flow on burner		
F.03	Align gas burners		
F.04	Check temperature rise across furnace		
F.05	Clean main burner		
F.06	Clean pilot orifices		
F.07	Compute cubic feet per hour gas requirements for furnace		
F.08	Determine dew-point temperature of air		
F.09	Install gas piping		
F.10	Install flue vents		
F.11	Light and adjust pilots		
F.12	Replace gas valves		
F.13	Check thermocouple		
F.14	Replace thermocouple		
F.15	Clean and inspect heat exchanger		

OCCUPATION: MAINTENANCE TECHNICIAN

DUTY: Install and Service Motors and Components

CODE	TASK	TAUGHT	COMMENTS
G.01	Align drive pulley		
G.02	Adjust V-belt tension		
G.03	Clean an electric motor		
G.04	Perform RPM test on electric motor		
G.05	Replace belts		
G.06	Replace electric motor		
G.07	Replace drive pulley		
G.08	Replace fan blade		
G.09	Reverse the rotation of an electric motor		
G.10	Wire a split-phase, dual-voltage motor to a 120/240 VAC supply		

OCCUPATION: **MAINTENANCE TECHNICIAN**

DUTY: **Install and Service Heat Pumps**

CODE	TASK	TAUGHT	COMMENTS
H.01	Service and repair defrost components		
H.02	Install defrost components		
H.03	Service and repair refrigerant circuit		
H.04	Test and replace reversing valve		
H.05	Install outdoor unit (heat pump)		
H.06	Install heat pump thermostat and cable		
H.07	Test and replace resistive heater circuit		